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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,716	05/20/2005	Sharon Ann Ashton	123998	7790
25944	7590	02/13/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER LUU, THANH X	
			ART UNIT 2878	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			02/13/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/535,716

Applicant(s)

ASHTON ET AL.

Examiner

Thanh X. Luu

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2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05/20/2005</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 9-12, "the emitter" lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Gelston (U.S. Patent 5,940,787).

Regarding claims 1 and 6, Gelston discloses (see Fig. 5) a tool analysis device for use on a machine tool comprising: a light emitter (22) and a light receiver (28), the light receiver receiving light from the emitter and producing a signal indicative of the amount of light being received, wherein the device further comprises a converter (A/D

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converters) for providing data having a numerical representation (digital) of the signal produced by the receiver and comprising a processor (44) for processing that data and for producing an output when the data conforms to a predetermined condition (matched signature). Since the microprocessor of Gelston handles digital data, as understood, the processor is a digital signal processor that processes the data continuously according to an algorithm.

Regarding claims 7 and 8, Gelston discloses (see Fig. 5) a method of processing an analog signal resulting from light falling on a light receiver (28) of a tool analysis device for use on a machine tool, comprising the steps of: converting (with A/D converters) the analog signal into data having a numerical form (digital) which represents the signal; and processing (with 44) the data according to an algorithm. Gelston also discloses producing an output signal when instructed by the algorithm when the data conforms to a predetermined condition (matched signature).

6. Claims 1 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Brooks et al. (U.S. Patent 5,164,995).

Regarding claims 1 and 6, Brooks et al. disclose (see Figs. 1 and 3) a tool analysis device for use on a machine tool comprising: a light emitter (20) and a light receiver (22), the light receiver receiving light from the emitter and producing a signal indicative of the amount of light being received, wherein the device further comprises a converter (50) for providing data having a numerical representation (digital) of the signal produced by the receiver and comprising a processor (CPU) for processing that data and for producing an output when the data conforms to a predetermined condition (see

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col. 7, lines 5-11). Since the microprocessor of Brooks et al. handles digital data, as understood, the processor is a digital signal processor that processes the data continuously according to an algorithm.

Regarding claims 7 and 8, Brooks et al. disclose (see Figs. 1 and 3) a method of processing an analog signal resulting from light falling on a light receiver (22) of a tool analysis device for use on a machine tool, comprising the steps of: converting (50) the analog signal into data having a numerical form (digital) which represents the signal; and processing (CPU) the data according to an algorithm. Brooks et al. also disclose producing an output signal when instructed by the algorithm when the data conforms to a predetermined condition (see col. 7, lines 5-11).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-5 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelston.

Regarding claims 2-5 and 9-16, Gelston discloses the claimed invention as set forth above. Gelston also discloses (see Fig. 8) various data conditions and (see col. 8, lines 5-10) using curve-fitting techniques. Gelston also recognizes that any such techniques are customary. Gelston does not specifically disclose the data conditions as claimed. However, choosing a particular data condition would require only routine skill

in the art. Furthermore, the particular data condition is tool or object specific. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any of the claimed data conditions in the apparatus and method of Gelston to properly identify desired conditions/states/positions of the tool.

9. Claims 2-5 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks et al.

Regarding claims 2-5 and 9-16, Brooks et al. disclose the claimed invention as set forth above. Brooks et al. do disclose (see col. 7, lines 5-11) comparing data signatures. Brooks et al. do not specifically disclose the data conditions as claimed. However, choosing a particular data condition would require only routine skill in the art. Furthermore, the particular data condition is tool or object specific. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any of the claimed data conditions in the apparatus and method of Brooks et al. to properly identify desired conditions/states/positions of the tool.

Conclusion

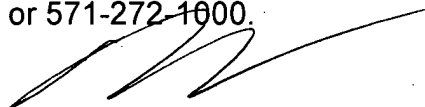
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thanh X Luu
Primary Examiner
Art Unit 2878

02/2007